DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-003061 Address: 333 Burma Road **Date Inspected:** 03-Jun-2008

City: Oakland, CA 94607

OSM Arrival Time: 1400 **Project Name:** SAS Superstructure **OSM Departure Time:** 2330 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes No N/A **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** OBG/Tower

Summary of Items Observed:

CALTRANS Quality Assurance (QA) Inspector, Erik Prue was present for the fabrication scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

Tower Bay 2: QA Inspector performed ultrasonic (UT) verification testing of the tower skin and stiffener plate Complete Joint Penetration (CJP) butt joints after ZPMC QC UT acceptance. Plates QA UT tested are ESD1 SA237A/F- 24A, ESD1 237A/F-25A, ESD1 SA77A/E 45A, and ESD1 SA294A/G-12A. QA Ultrasonic Testing (UT) was performed to verify that 10% of the weld meets the requirements of the contract documents and AWS D1.5-2002. The weld and base metal were scanned utilizing a Krautkramer Branson USN 60 #01RN5T. QA Inspector performed a base metal lamination check using a 25mm diameter 2.25 MHz transducer and a shear wave scan using a 20mm x 15mm 2.25 MHz transducer on a 70, 60, and 45 degree angle wedges from face A. For details please see the ultrasonic testing report TL-6027 dated 03 June, 2008. QA Inspector found the welds inspected to be in compliance with AWS D1.5- 2002 Table 6.3 and the contract documents.

OBG Bay 3: QA Inspector performed ultrasonic (UT) verification testing of Side Plate I-Beam Complete Joint Penetration (CJP) Butt joints after ZPMC Quality Control (QC) acceptable UT inspection on I-Beams welds. I-Beam welds QC UT inspected and QA verified this day are SP180-001-019 & 020, SP182-001-019 & 020, SP179-001-019 & 020, SP183-001-019 & 020, SP178-001-050 & 051, and SP181-001-050 & 051. ZPMC QC UT inspection (12 welds) represented a lot inspection of a minimum of 25% of the total number of welds (38) available for inspection this day. QA UT verification was performed to verify that 10% of the weld meets the requirements of the contract documents and AWS D1.5-2002. The weld and base metal were scanned utilizing a

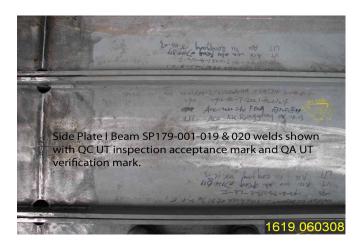
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Krautkramer Branson USN 60 #01RN5T. QA Inspector performed a base metal lamination check using a 25mm diameter 2.25 MHz transducer and a shear wave scan using a 20mm x 15mm 2.25 MHz transducer on a 70 degree angle wedge from face A. For details please see the ultrasonic testing report TL-6027 dated 03 June, 2008. QA Inspector found the welds inspected to be in compliance with AWS D1.5- 2002 Table 6.3 and the contract documents.

QA Inspector reviewed ABF and ZPMC QC accepted radiographic (RT) film for edge plate complete joint penetration (CJP) welds. Radiographic film for welds reviewed were; EP021-001-001, EP054-001-017, EP042-001-001, EP037-001-001, and EP028-001-001. RT film for bottom plate welds appear to be acceptable to AWS D1.5 (2002) and special provisions. For details please see radiographic film report TL-6029 dated 03 June, 2008.





Summary of Conversations:

No significant conversations this day.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry, 858 344-2712, who represents the Office of Structural Materials for your project.

Inspected By:	Prue,Erik	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer